are adsorbed by the clay and humus, and the acids set free. In such areas the reaction is often found to change sharply within a few centimeters from a specific alkalinity of 30 to a specific acidity of 300. These methods and results seem likely to place the old contention of the relative importance of the physical and chemical properties of soil upon a new experimental basis, and to result in a much clearer conception of the meaning and application of the terms "oxylophytes" and "calcicoles."—GEO. D. FULLER.

Seacoast vegetation.—A description of the vegetation of the eroding seashores of Connecticut has been added by NICHOLS[26] to his other studies of the vegetation of the state previously noted in this journal.[27] He groups the important factors as those relating to submergence, such as salinity, tides, illumination, and temperature of the water, those relating to physiography, and those to atmospheric influences. The eroding seashores of the state are developed either in rock or glacial drift, and from each of these situations distinctive associations are described. The range of the studies is from the sublittoral algal associations to the forests which fringe the shores.

The depositing shores present even more diverse conditions,[28] depending principally upon the character of the soil, stony, sandy, and muddy areas, each having characteristic series of associations. The various associations are carefully described, and in the actual succession along muddy shores there is found evidence of coastal subsidence similar to that presented by GANONG, PENHALLOW, BARTLETT, and others.

Some attention is devoted to the salt marsh depressions or "pans" which appear to have various origins. Some are due to the destruction of the ordinary salt marsh vegetation by the decay of masses of plant remains swept over the surface during times of unusually high water, but others result from the partial filling and obstructing of tidal creeks and lagoons or by the building of tidal levees and the consequent ponding of water, between tides, in the lower parts of the marsh.—GEO. D. FULLER.

Crown gall of alfalfa.—WILSON[29] has described and figured in some detail the fungus causing crown gall of alfalfa. He concludes that the parasite is present in the gall in the form of a plasmodium, formed by the fusion of amoeboid cells in the host cells. He thinks that it spreads through the host tissues as a streaming mass or network of naked protoplasm, and that any mycelium observed has no connection with the gall forming organism. This plasmodial

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[26] NICHOLS, GEO. E., The vegetation of Connecticut. VI. The plant associations of eroding areas along the seacoast. Bull. Torr. Bot. Club **47**:89–117. *fig. 6.* 1920.

[27] ———, BOT. GAZ. **59**:159–160. 1915; **65**:572. 1918.

[28] ———, The vegetation of Connecticut. VII. The associations of depositing areas along the seacoast. Bull. Torr. Bot. Club **47**:511–548. *fig. 10.* 1920.

[29] BOT. GAZ. **70**:51. 1920.